Puerto Rico Telephone Company (PRTC) and USTA believe that NECA pool members should not be required to provide expanded interconnection because pool members do not have control over their special access rates and, therefore, would be unable to respond to competition from interconnectors.[107] Lincoln argues that rate of return carriers should be exempt from an expanded interconnection requirement because of the difficulty of creating a regulatory scheme that is both compatible with rate of return regulation and rate flexibility.[108] Lincoln also proposes that mandatory expanded interconnection be limited to exchanges of over 100,000 lines in a Metropolitan Statistical Area. That would allow interconnection in all major markets without forcing LECs to incur unreasonable costs to build new facilities in smaller exchanges where costs would exceed benefits.[109]

**49.** Cincinnati Bell requests that if the Commission implements collocation before resolving access charge and pricing flexibility issues, it initially exclude small to medium-sized LECs, such as Cincinnati Bell, which serves only one urban center and is more vulnerable to competition.[110] NYNEX and Rochester, on the other hand, assert that there may be demand for collocation in rural areas and, therefore, argue that LECs should be required to offer expanded interconnection in both urban and suburban areas.[111] Rochester and USTA argue that non-Tier 1 LECs and certain smaller Tier 1 LECs should be exempt.[112] SW Bell is concerned that our proposal may be detrimental to non-Tier 1 LECs.[113]

**50.** Some CAPs suggest that all LECs should be subject to interconnection rules for all service areas, subject to a waiver procedure in which LECs would have the burden of proof.[114] Most potential interconnectors generally argue that non-Tier 1 LECs should be covered by the Commission's proposed rules. MFS, for example, contends that all LECs, including PRTC, should be required to provide expanded interconnection and that rural portions of Tier 1 LEC service areas should not be exempt from the collocation requirement.[115] Teleport Denver, on the other hand, believes

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107 PRTC Comments at 1-4.

108 Lincoln Comments at 4-5.

109 Lincoln Comments at 3-4.

110 Cincinnati Bell Reply Comments at 10-11 n.23 & 25-26.

111 NYNEX Comments at 23; Rochester Comments at 18 n.22.

112 Rochester Comments at 18-19; USTA Comments at 38-39; USTA Reply Comments at 16-17.

113 SW Bell Comments at 41-42.

114 See, e.g., ICC Comments at 19-20; ALTS Comments at 27.

115 MFS Comments at 68-70; MFS Reply Comments at 53-54 & n.53.

that the interconnection proposal should apply to all Tier 1 LECs, but only on a voluntary basis to smaller LECs.[116] FMR supports initially limiting the requirement to Tier 1 LECs if that would speed the provision of expanded interconnection. It also requests that the Commission simultaneously establish a framework for third parties to request interconnection from other LECs, especially those already providing high-capacity services, to ensure that the Commission does not artificially limit availability of expanded interconnection services.[117]

51. MCI asserts that expanded interconnection requirements should apply to Tier 1 LECs in all locations.[118] Long Distance North argues that limiting expanded interconnection requirements to metropolitan areas would be arbitrary and discriminatory because interconnection facilities are identical regardless of location.[119] General Communication, Inc. states that small LECs may have the technical capability to offer expanded interconnection, and argues that those with the capability should be required to do so.[120] MCI proposes that if the interconnection requirements are relaxed in sparsely populated areas, expanded interconnection should still be required upon bona fide request in rural areas.[121] MCI also argues that LECs should not be granted reciprocal interconnection rights to CAP networks.[122]

52. Users agree that all Tier 1 LECs should have universal interconnection obligations,[123] and that expanded interconnection should cover rural areas.[124] Ad Hoc argues that smaller carriers should be required to honor reasonable requests for collocation absent a showing of hardship.[125] GSA, UTC and API contend that expanded interconnection rules should apply to all LECs, including small LECs, arguing that even many small LECs have sophisticated facilities and that customers of small LECs should not be

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116 Teleport Denver Comments at 10.

117 FMR Comments at 18.

118 MCI Comments at 19-20. See also Long Distance North Comments at 1-5.

119 Long Distance North Comments at 2.

120 GCI Comments at 2-4; GCI Reply Comments at 2-4.

121 MCI Comments at 20.

122 MCI Reply Comments at 67-68.

123 See, e.g., Ad Hoc Comments at 26-27; API Comments at 12-14; UTC Comments at 7-9; GSA Comments at 11-13.

124 See, e.g., API Comments at 12-14; Pennsylvania Consumer Advocate Comments at 2-3; Wells Rural Electric Comments at 6-7.

125 Ad Hoc Comments at 27.

deprived of the benefits of interconnection.[126] GSA suggests that LECs be entitled to seek waivers for specific problems (e.g., space limitations) to postpone expanded interconnection until the underlying problem is resolved.[127] GSA also contends that NECA could continue to pool the unbundled connection charge and that the overall effect of expanded interconnection on pooling companies including PRTC, would be negligible.[128]

53. Small LECs argue that expanded interconnection requirements should not apply either to small LECs or to Tier 1 LECs in rural areas or in Puerto Rico because of the potential adverse effects on universal service and infrastructure development and because demand for collocation is likely to be limited in rural areas.[129] TDS specifically states that rural areas often have only one or two large business customers, adding that the diversion of these customers' traffic would have a far greater impact than loss of one or two customers in an urban area.[130]

54. Several states agree that expanded interconnection should apply to all Tier 1 LECs in all areas, including rural areas.[131] Michigan argues that all carriers, including CAPs and small LECs, should be required to provide physically and/or virtually collocated interconnection.[132]

55. The SBA opposes applying expanded interconnection requirements to small LECs, but supports applying the requirements to Tier 1 LECs in all areas.[133] NTIA argues that interconnection rights should be reciprocal among common carriers.[134]

56. Discussion. While requiring all LECs to provide expanded

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126 GSA Comments at 11-13; UTC Comments at 7-9; API Reply Comments at 17-19.

127 GSA Comments at 11-13.

128 GSA Reply Comments at 8-9.

129 See, e.g., TDS Comments at 8, 15-21; TDS Reply Comments at 27-30; OPASTCO Comments at 2-6; NECA Comments at 2-3; NECA Reply Comments at 1-4; NTCA Reply Comments at 2-5; Matanuska Telephone Association Reply Comments at 1-3; Anchorage Telephone Utility Reply Comments at 1-5; Fairbanks Municipal Utilities System Reply Comments at 1-3; Kansas Independent Rural Telephone Companies Reply Comments at 3-4.

130 TDS Reply Comments at 28.

131 See, e.g., Illinois Comments at 10-11; Florida Comments at 10.

132 Michigan Comments at 6-7.

133 SBA Comments at 18-20.

134 NTIA Reply Comments at 12-13.

interconnection would ensure that customers in all areas can benefit from expanded interconnection, it is unlikely that there would be great demand for expanded interconnection in the smaller LECs' service areas, at least in the near term. Requiring smaller LECs to offer expanded interconnection might also tax their resources and harm universal service and infrastructure development in rural areas. We believe that the demand for expanded interconnection that does exist in rural areas typically would come from a single large user. The use of expanded interconnection offerings by such customers could create substantial stranded LEC investment that could not readily be reused, possibly threatening the economic viability of a small LEC.[135]

57. We therefore adopt our proposal to limit the requirement to Tier 1 LECs. This would ensure the availability of expanded interconnection in most urban and suburban areas where demand is likely to be greatest. We also conclude that NECA pool members should be excluded from expanded interconnection requirements, at least for the present. Since the Puerto Rico Telephone Company is the only Tier 1 LEC that also is a NECA pool member, this is not much more restrictive than requiring all Tier 1 LECs to provide expanded interconnection. At this time, we are not convinced that it would be beneficial to require a pool carrier, which has limited pricing flexibility, to provide expanded interconnection. It might cause that member's contribution to the pool to decrease, put upward pressure on the pool's access rates, reward less efficient CAPs, and cause the pool carriers' ratepayers to bear the burden of stranded plant. The inclusion of non-Tier 1 LECs that are NECA pool members within the expanded interconnection requirement also could create these problems. We may revisit this decision to exclude NECA pool members after we have an opportunity to observe the effect of expanded interconnection on other LECs. We see no reason, however, to exclude rate of return Tier 1 carriers not in the NECA pool from the obligation to provide expanded interconnection. We believe that rate of return carriers will have sufficient flexibility to respond to competitors' offerings, particularly in light of the measures we are adopting to permit a system of density pricing zones.[136]

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135 While large customers currently can bypass the LEC entirely using non-LEC facilities from their premises to the end point of the circuit, expanded interconnection makes the use of non-LEC alternatives more attractive to a greater range of customers by allowing substitution of alternative facilities for selected portions of the LEC network.

136 We also note that the Commission's rules applicable to rate of return LECs do not specify cost allocation procedures for individual special access offerings, although the rules do specify the method for allocating costs to the overall category. Thus, while rate of return LECs must provide cost support for their special access filings, they need not use a particular cost allocation method. The degree of competition faced by a particular LEC is one factor that we would consider in determining the reasonableness of a proposed cost allocation method. The Commission is also considering increased pricing flexibility for the larger rate of return LECs. Regulatory Reform for Local Exchange Carriers Subject to Rate of Return Regulation, Notice of Proposed Rulemaking, 7 FCC Rcd 5023 (1992).

**58.** We also will not exempt Tier 1 LECs from providing expanded interconnection in sparsely populated areas. It would be difficult to establish a standard to delineate exempt areas, especially when the record is not very helpful on this point.[137] The potential economic consequences of including rural areas served by Tier 1 LECs are less significant than the possible impact of expanded interconnection on smaller, non-Tier 1 LECs. For example, a Tier 1 LEC's customer and geographic mix usually includes substantial numbers of mid-size business and residential customers in suburban areas -- a source of potential revenue that is often not available to smaller LECs. Thus, a Tier 1 LEC is rarely as heavily dependent on a single large business customer to support high cost rural customers as a smaller LEC may be.[138] Nor do we believe that Tier 1 LECs, such as Cincinnati Bell, which serve primarily urban areas, should be exempted from our expanded interconnection requirements given the potential demand for this service in their territory.

### B. Parties Entitled to Expanded Interconnection

**59.** Notice. In the Notice, we proposed that expanded interconnection be made available to all third parties, regardless of classification, including CAPs, IXCs, end users, and any other entities.[139]

**60.** Comments. Justice and the majority of Tier 1 LECs agree that all parties should be entitled to expanded interconnection, and that the service should not be limited to CAPs.[140] MFS supports extending expanded interconnection to all third parties,[141] and DDI, another CAP, argues that the Communications Act mandates that interconnection be available to all entities.[142] MFS cautions, however, that in some instances it may be necessary to distinguish between end users and IXCs because carriers may need

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137 While Lincoln proposes limiting the expanded interconnection requirements to exchanges of over 100,000 lines in a Metropolitan Statistical Area, we believe that such an exemption would be overly broad.

138 Therefore, we are not exempting Nevada Bell from the expanded interconnection requirements.

139 Notice, 6 FCC Rcd at 3264, ¶ 30.

140 See, e.g., Justice Reply Comments at 27-29; NYNEX Comments at 21; Ameritech Comments at 59; GTE Comments at 20-22; SW Bell Comments at C-11. Several of the LECs also argue that reciprocal collocation should be permitted, allowing LECs to resell portions of their competitors' networks. See, e.g., Bell Atlantic Comments at 13-14; Pacific Comments at 71; BellSouth Comments at 47-48; USTA Comments at 28-30.

141 MFS Comments at 65-68. See also PCNS-NY Comments at 6; Cellular Service, Inc. Comments at 1-6.

142 DDI Comments at 3-5.

features that other interconnectors do not need.[143] Users argue that interconnection should be available to all parties, contending that any restriction would constitute unreasonable discrimination and would reduce the competitive benefits of the Commission's actions.[144] Some state commissions contend that all parties should be entitled to expanded interconnection for interstate special access,[145] and Florida suggests that providers such as power and cable television companies could provide beneficial competitive services to residential or small business customers.[146]

61. SNET, however, believes that in order to achieve the Commission's goal of enhancing competition, expanded interconnection must be limited to licensed CAPs.[147] Teleport Denver also argues that only CAPs, not users, should have access to collocated interconnection.[148] It believes that direct interconnection of users could stymie growth of the CAP industry.[149] Illinois recognizes that expanded interconnection is only available in Illinois to certified local exchange carriers such as Teleport, but argues that this is not inconsistent with the Commission proposal.[150] The SBA proposes if there is a space shortage in a LEC central office, common carriers should have priority over other parties.[151]

62. The IXCs generally agree that expanded interconnection should

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143 MFS Comments at 66-67. As an example, MFS cites carrier signalling used with switched transport. Id.

144 See, e.g., Ad Hoc Comments at 26-27; AAR Comments at 6-7; API Comments at 9-11; Bankers Comments at 20; CompuServe Comments at 7-8; GSA Comments at 10-11; UTC Comments at 6-7.

145 See, e.g., Florida Comments at 8-10; Minnesota Commission Reply Comments at 6-7. See also Illinois Comments at 9-10 (IXC use of expanded interconnection would increase competition).

146 Florida Comments at 8-10.

147 SNET Comments at 14.

148 Teleport Denver Comments at 9-10. According to Teleport Denver, if users are permitted to collocate on the same terms as CAPs, the LECs would aggressively market interconnection services to their largest customers and quickly fill the available central office space. In addition, Teleport Denver argues that end user access termination is less efficient than collocation by a CAP serving many end users. Teleport Denver Reply Comments at 13-14.

149 Id.

150 Illinois Comments at 9-10.

151 SBA Comments at 23-24.

be available to all parties to prevent unlawful discrimination.[152] A number of the non-dominant IXCs argue, however, that restrictions should be placed on AT&T's ability to take advantage of expanded interconnection, so as to reduce what they view as AT&T's historical advantage flowing from the pre-divestiture structure.[153] CompTel asserts that AT&T currently enjoys unearned advantages over other IXCs because AT&T has many more POPs located close to or inside LEC central offices.[154] MCI alleges that 43% of AT&T's POPs share V & H coordinates with LEC central offices.[155] It asserts that the collocation of AT&T POPs in the same building as a LEC central office would unfairly allow AT&T to convert special access service to expanded interconnection, reducing its access costs unfairly and disrupting interexchange competition.[156]

63. These non-dominant IXCs suggest a variety of measures to remedy this problem. CompTel suggests that the Commission determine the extent to which AT&T already enjoys effective collocation at LEC central offices. Comptel also argues that the Commission should determine the residual access rates BOCs would be likely to charge other users to recover special access costs once AT&T migrates to collocated interconnection. CompTel suggests that, during a transition period, AT&T should be barred from access to expanded interconnection at LEC wire centers unless a competing CAP or IXC also is present.[157] MCI argues that, when already collocated in a LEC central office, AT&T should not be permitted to take advantage of expanded interconnection for existing circuits, and should be allowed to use expanded interconnection for additional circuits at those offices only after expiration of a three year moratorium.[158] MCI suggests as

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152 See, e.g., MCI Comments at 19; Allnet Comments at 5; WilTel Comments at 6.

153 See, e.g., Allnet Comments at 2-4; CompTel Comments at 8-12; CompTel Reply Comments at 1-6; MCI Comments at 14-19; MCI Reply Comments at 16-28; WilTel Comments at 30-33.

154 CompTel Comments at 8-12; CompTel Reply Comments at 1-6.

155 MCI Comments at 16 & Exh. 1. V & H coordinates show the longitude and latitude of a given location, although points having the same V & H coordinates can be as much as one third of a mile apart. AT&T Reply Comments at 7 n.*.

156 MCI Comments at 15-16; MCI Reply Comments at 16-23. Accord CompTel Comments at 8-11; CompTel Reply Comments at 1-4; WilTel Comments at 30-32; WilTel Reply Comments at 16-20; WilTel Ex Parte (April 24, 1992).

157 CompTel Comments at 12.

158 MCI Reply Comments at 17-23. In addition, MCI argues that AT&T should be required to access the central office through the same entrance point as other interconnectors, using the same interconnection facilities, and paying the same rates.

an alternative that all IXCs located within five miles of a LEC central office where AT&T is collocated pay the same interconnection rate as AT&T for a three-year period.[159] WilTel also proposes a plan for restricting AT&T use of expanded interconnection for special access. It proposes implementing expanded interconnection pricing only after an access carrier has made a bona fide request for such service. Thereafter, expanded interconnection would be generally available, but, for a five year period, AT&T would be allowed to pay the reduced expanded interconnection rates only for new circuits.[160] Other non-dominant IXCs propose rate restrictions on AT&T or elimination of the "one-eighth mile" and "first-come, first-served" proposals.[161]

64. AT&T and a number of the LECs argue that expanded interconnection would not give AT&T a competitive advantage. AT&T asserts that the number of AT&T POPs located under Shared Network Facilities Arrangements (SNFAs) in BOC central offices has declined precipitously.[162] AT&T states that on a nationwide basis, 28% of its POPs are collocated with LEC central offices.[163] In addition, AT&T argues that the revised rate structure proposed in the Notice would provide no access cost advantage to AT&T because all parties would be required to pay the same charges for interconnection to LEC central offices. NYNEX argues that AT&T's facilities located in LEC buildings pursuant to SNFAs should not qualify for treatment as collocated facilities for purposes of expanded interconnection,[164] and Ameritech states that it would require AT&T to take virtual collocation through a manhole adjacent to the central office just like other interconnectors.[165]

65. Discussion. We conclude that expanded interconnection for special access should be made available to all parties who wish to terminate their own special access transmission facilities at LEC central offices, including CAPs, IXCs, and end users. This approach is consistent with our policy of not distinguishing between carriers and end users in the access charge context. Permitting IXCs and end users to take advantage of expanded interconnection will increase competition by permitting more alternatives to

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159 MCI Ex Parte at 2 (June 5, 1992).

160 WilTel Ex Parte at 4 (April 24, 1992).

161 See, e.g., CompTel Comments at 11-12; CompTel Reply Comments at 1-6; MCI Comments at 17-19; MCI Reply Comments at 21-28; Allnet Comments at 1-4.

162 Apparently, a significant number of arrangements permitting AT&T to locate POPs in the same buildings as LEC offices will continue for substantial periods of time, however.

163 AT&T Ex Parte at 2 (June 17, 1992).

164 NYNEX Reply Comments, Exh. 10 at 1-2. NYNEX contends that AT&T should receive the same treatment as other interconnectors. Id. at 2.

165 Ameritech Reply Comments at 37-38.

LEC special access.[166] It also will help to bring the benefits of special access competition to customers in suburban and rural areas not served by CAPs and make it more difficult for LECs to increase rural rates above cost. We disagree with Teleport Denver's argument that we should sacrifice these benefits in order to foster CAP development by keeping out other potential competitors.[167]

**66.** The question remains, however, whether we should place restrictions on the ability of AT&T, and any other parties already located in the same building as a LEC central office,[168] to take advantage of expanded interconnection. We conclude that these parties should be required to interconnect with LEC facilities in the same manner as other interconnectors, using fiber optic facilities. We will not require that entities already located in the same building as a LEC central office actually route fiber optic facilities out of the building and back in through the same route used by other interconnectors, however, since that would use potentially scarce riser and cable vault space.[169] Requiring that AT&T and any other parties

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166 This decision reflects the Commission's commitment to promote competition in the telecommunications and the video marketplace. Cable companies will be able to compete in the interstate access market as access providers, while telephone companies have recently been granted authority to participate in the video marketplace through video dialtone. Telephone Company-Cable Television Cross-Ownership Rules, Second Report and Order, Recommendation to Congress, and Second Further Notice of Proposed Rulemaking, CC Docket No. 87-266, FCC 92-327 (released August 14, 1992).

167 A few parties argue that the Commission should require fully reciprocal interconnection rights for LECs and interconnectors. We believe that the CAPs should be willing to provide service to LECs on a voluntary basis, however, and see no reason to impose such requirements on them or other interconnectors since they do not control bottleneck facilities.

168 While this situation applies almost exclusively to AT&T, we are aware of several instances where other IXCs have similar arrangements. This discussion does not apply to entities currently collocated for the purpose of expanded interconnection.

169 Thus, parties already located in the same building as a LEC central office, for example, will be required to rent additional floor space and furnish it with appropriate electronic transmission equipment and fiber optic cable under physical collocation. Moreover, under physical collocation, we require that these parties' initial space preparation fees, in addition to covering the cost of preparing the interconnector's floor space, compensate the LEC for the cost of installing fiber optic cabling running from the entry point to the interconnector's designated floor space in the LEC central office. As a result, these parties will incur the same expenses as any other interconnector. Under virtual collocation, these parties are to pay for central office equipment dedicated to their use as well as charges to cover the cost of fiber optic cable from the entry point to the interconnector central office equipment. We believe that these

located in the same buildings as a LEC central office interconnect in the same manner as other parties ensures that all parties taking advantage of expanded interconnection will do so under the same general terms and conditions. This will help to eliminate the potential for special collocation deals for particular interconnectors.[170] We do not think, however, that it is appropriate to impose a "headstart" penalty on AT&T or other parties already located in the same building as a LEC central office by restricting their ability to take advantage of expanded interconnection for a fixed period of time or until another interconnector is collocated in the central office, as some parties have suggested. Nor do we believe that according other IXCs located within five miles of a LEC central office in which AT&T is collocated the same interconnection rate as AT&T is reasonable since that approach does not reflect the cost of serving these customers.

**67.** In particular, we do not believe that AT&T's large number of POPs and their proximity to LEC end offices and serving wire centers is an advantage that warrants broader restrictions on AT&T's use of expanded interconnection. AT&T's network architecture does mean that AT&T would incur fewer costs than other IXCs in building its own special access facilities to connect with the LECs under expanded interconnection. This is offset somewhat by the added capital costs that AT&T incurred when it put these facilities in place initially, and the additional operating expenses that they cause.[171]

**68.** Our decision to require designation of an interconnection point adjacent to the central office also reduces the potential benefits of having POPs located close to LEC central offices. Under the originally-proposed one-eighth mile standard, a party with a POP anywhere within that distance of the LEC central office could obtain expanded interconnection without installing any additional fiber optic facilities. Under the standard we adopt here, such parties would have to install fiber optic facilities to the connection point unless their facilities were actually located in the same building. While we are not requiring that interconnectors located in LEC central office buildings run fiber optic facilities out to the

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restrictions are appropriate even through they force AT&T to forgo potential engineering efficiencies.

[170] The LECs' incentives to offer individual parties particularly favorable expanded interconnection arrangements are relatively limited since any such arrangements would merely facilitate use by those parties of competitive alternatives to LEC access networks.

[171] We also note that, in the Interexchange Order, with the exception of 800 service, the Commission was not persuaded by small IXCs' arguments in favor of placing various restrictions on AT&T's Basket 3 business services based on its inherent historical advantages. Instead, the Commission found that regulation of AT&T's Basket 3 business services -- which included virtually all AT&T services using LEC special access -- should be streamlined. We did not streamline AT&T's 800 service because of the lack of 800 number portability. Interexchange Order, 6 FCC Rcd at 5893-95, 5903-06.

interconnection point and back into the building, they must compensate the LEC as if the LEC provided those facilities and interconnect exactly like other parties in all remaining respects. This greatly reduces potentially unfair advantages associated with having a POP located in the same building as a LEC central office. Accordingly, we see no reason to impose substantial restrictions on AT&T's use of expanded interconnection that do not apply to other parties.[172]

## VI. STANDARDS FOR INTERCONNECTION ARRANGEMENTS

### A. Overview

**69.** Notice. We proposed adopting specific rules and standards governing the terms and conditions of LECs' special access expanded interconnection offerings.[173]

**70.** Comments. Some LECs suggest that, in lieu of adopting detailed rules for expanded interconnection, the Commission should establish general interconnection goals or principles.[174] U S West suggests that as with ONA, the Commission should allow the LECs to file service offerings that comport with general interconnection principles.[175] GTE and several state commissions propose that the Commission develop broad guidelines, but defer to state commissions to implement expanded interconnection.[176] BellSouth suggests that the Commission encourage LECs to introduce expanded interconnection voluntarily by relaxing certain regulations for implementing LECs.[177]

**71.** Other parties respond that the Commission should issue specific rules on interconnection standards and closely supervise the implementation process in order to avoid the delays and LEC market power exploitation that they assert have characterized proceedings such as ONA to date.[178]

**72.** Discussion. We believe that the adoption of certain standards

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172 We will, however, monitor expanded interconnection to determine whether parties other than AT&T are taking advantage of expanded interconnection. See infra ¶ 263.

173 Notice, 6 FCC Rcd at 3262-64, ¶¶ 21 & 26.

174 USTA Comments at 14-16.

175 U S West Comments at 55-58.

176 GTE Comments at 1-11; Arkansas/Missouri Reply Comments at 4; California Comments at 9-10.

177 BellSouth Comments at 45-46; BellSouth Reply Comments at 17.

178 Bankers Reply Comments at 21-22; McCaw Reply Comments at 16-17.

will bring faster implementation of expanded interconnection by clarifying the rights and obligations of the LECs and interconnectors. This should greatly reduce the number of disputes arising during the implementation process. Adopting only general principles would leave the process of defining those general guidelines to future proceedings with the likelihood of substantial delay.

### B. Space Allocation and Exhaustion

**73.** Notice. We invited comment on whether we should establish standards for space allocation among interconnecting parties in the event that there is insufficient space in a central office to accommodate all prospective interconnectors with physical collocation arrangements.[179]

**74.** Comments. Although the parties differ on whether exhaustion of central office space under a regime of physical collocation is likely, they agree for the most part that such space should be offered on a first-come, first-served basis.[180] At least one commenter suggests that carriers should be given priority over other interconnectors in space allocation decisions,[181] but that suggestion is strongly disputed by various users.[182] The SBA proposes that if there is a space shortage in a LEC central office, certified carriers should have priority over end users or ESPs.[183]

**75.** A number of the LECs generally argue that they should not have to construct new buildings and additions, or forgo their own planned use of central office space in order to accommodate interconnectors.[184] The Justice Department agrees, arguing that LECs would have an incentive to acquire additional space voluntarily to meet demand if they can recover the market value of such space.[185]

**76.** A few LECs argue that they should be free to establish minimum

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179 Notice, 6 FCC Rcd at 3264, ¶ 27.

180 See, e.g., United Comments at 3, 6-7; USTA Comments at 34-37; Cincinnati Bell Reply Comments at 23.

181 SBA Comments 23-24.

182 Bankers Reply Comments at 7-11.

183 SBA Comments at 23-24.

184 See, e.g., Bell Atlantic Comments at A-5; Cincinnati Bell Reply Comments at 23-24.

185 Justice Reply Comments at 39-40.

and maximum floor space requirements under physical collocation.[186] The CAPs generally think this is reasonable, but ask that they be given the option to lease additional units of space or to reserve additional space for future use, subject to a reasonable deposit and anti-warehousing safeguards.[187] MFS proposes that the Commission limit LEC-imposed insurance requirements in connection with physical collocation arrangements to a maximum of $1 million.[188]

77. Discussion. In certain LEC central offices, space for physical collocation could become filled to capacity. In such circumstances, we conclude that, rather than being free to reject subsequent requests for expanded interconnection, LECs should be required to provide virtual collocation when space for physical collocation is exhausted. In addition, we conclude that LECs should be required to offer central office space on a first-come, first-served basis.[189]

78. Permitting LECs to turn away interconnectors when space for physical collocation is exhausted could prevent interested parties from collocating in offices where space is limited. Requiring LECs to provide a virtual collocation alternative will help ensure that all potential interconnectors can be accommodated, but should not prove to be onerous for the LECs. LECs claiming that space is exhausted in any particular central office may file petitions for exemption from the general requirement that LECs make physical collocation available to interconnectors desiring it.[190] A LEC that is already offering interstate physical collocation in a given office must

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186 United Comments at 3, 6-7; USTA Comments at 34; Cincinnati Bell Reply Comments at 22-23; Teleport Denver Comments 7-8; Locate Comments at 35; ICC Comments at 18-19.

187 Locate Comments at 34-35; MFS Comments at 47-51.

188 MFS Comments at 53.

189 In addition to space allocation issues, questions concerning appropriate security arrangements also can arise under physical collocation. Most commenters argue that appropriate security arrangements for physical collocation should be negotiated by the parties. We agree that specific security issues as well as appropriate insurance levels and other similar matters are best resolved through informal discussions among interested parties, with those resolutions reflected in LEC tariffs. We believe that other detailed terms and conditions for physical collocation should be similarly developed. We will require that any arrangements imposed by the LECs meet legitimate concerns, and we will reject tariff language containing terms that are unreasonably restrictive or expensive.

190 Absent exceptional circumstances, these petitions will be evaluated based on factual showings related to the issue of space availability.

continue to do so during the pendency of such petitions.[191]

**79.** We find that requiring LECs to expand their facilities or relinquish space reserved for their future use, as suggested by some parties, is neither reasonable nor likely to serve the public interest. Such a requirement could interfere with the LECs' ability to serve existing ratepayers and might impose considerable and unnecessary expense on the LECs when a virtual collocation alternative can be implemented. We do, however, expect that LECs will consider interconnector demand for central office space when remodeling or building new central offices, just as they consider demand for other services when undertaking such projects.

**80.** Since we are requiring LECs to provide virtual collocation when space for physical collocation is exhausted, allocating space on a first-come, first-served basis appears to be more equitable than giving a preference to carriers, as all interconnectors would be able to obtain access to the central office through either physical or virtual collocation. We also permit LECs to include in their tariffs reasonable restrictions on warehousing of unused space by interconnectors.

### C. Point of Interconnection

**81.** Notice. We proposed that interested parties be allowed to interconnect with the LEC for purposes of expanded interconnection anywhere within one-eighth mile (201 meters) of the LEC central office. We explained that this distance would represent the minimum use of LEC facilities for which a customer must pay when interconnecting under a virtual collocation arrangement.[192]

**82.** Comments. The one-eighth mile standard proposed in the Notice was criticized by LECs, CAPs, and users. A number of the LECs express concern that the proposal might require them to extend their fiber optic facilities to a potentially unlimited number of locations within that radius,[193] and that, in large metropolitan areas, hundreds of business

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191 We delegate authority to the Chief, Common Carrier Bureau, to consider and rule on such petitions. As central office space is exhausted, the LEC will, of course, have to cease offering physical collocation to new interconnectors, and begin using virtual collocation to accommodate these parties at a point when enough central office space is still available to accommodate all anticipated expanded interconnection customers through virtual collocation. Once a LEC provides physical collocation in a particular central office, however, we would not permit it to withdraw this offering for existing customers due to space limitations, absent extraordinary circumstances.

192 Notice, 6 FCC Rcd at 3262-63, ¶ 22.

193 See, e.g., Bell Atlantic Comments at A-9; GTE Comments at 29; United Comments at 7-8; USTA Comments at 17; Ameritech Reply Comments at 30-31. The non-dominant IXCs also criticize the one-eighth mile rule as

customers would be potential interconnectors simply by virtue of their location.[194] While some LECs agree with the Commission's proposal that interconnection be allowed anywhere within one-eighth of a mile of the central office, others argue that each LEC should be permitted to (or that the Commission should) designate a finite number of interconnection points within that radius, rather than allowing the customer to choose the location to which the LEC would have to bring its fiber optic facilities.[195]

**83.** CAPs argue that the one-eighth mile standard fails to acknowledge that, in the case of virtual collocation, as opposed to traditional special access, an interconnector would be entering into an arrangement expressly designed to avoid purchasing LEC transmission services.[196] In addition, the one-eighth mile standard was widely misconstrued by potential interconnectors. For example, some of the CAPs and users believe the one-eighth mile rule would require an interconnecting party to establish a node or "mini-POP" in a nearby building at which the interconnection would occur.[197] Teleport suggests that the operational demarcation point be placed inside the central office in order to clarify that such nodes are not necessary.[198] It also proposes placing the ownership demarcation point for virtual collocation in a public right-of-way that is accessible to all potential interconnectors and is as close to the central office as possible.[199] GSA is the only user that specifically asserts that the proposed one-eighth mile interconnection zone is reasonable.[200]

**84.** Discussion. We conclude that we should require LECs to specify an interconnection point or points as close as reasonably possible to the central office.[201] In order to ensure that all parties are treated

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inherently arbitrary. See, e.g., MCI Comments at 18; Allnet Comments at 2-3.

194 See, e.g., NYNEX Comments at 17.

195 See, e.g., Bell Atlantic Comments at A-9; Pacific Comments at 73-74; BellSouth Comments at 59; GTE Comments at 29-30; United Comments at 4, 7-8; USTA Comments at 17-18; Ameritech Reply Comments at 30-31.

196 See, e.g., MFS Comments at 38-39.

197 See, e.g., McCaw Reply Comments at 11-14.

198 Teleport Comments at 22. The "operational demarcation" point would define the point at which interconnector operational control of the circuit ceases and LEC operational control begins.

199 Id.; ALTS Comments at 21.

200 GSA Comments at 8.

201 Under virtual collocation, the interconnection point would constitute the demarcation between interconnector and LEC ownership of facilities. Under physical collocation, the interconnection point would not

fairly, these interconnection points must be physically accessible by both the LEC and interconnectors on non-discriminatory terms.

85. The proposed one-eighth mile standard was intended to make clear which parties would qualify for expanded interconnection and the minimum use of LEC transmission facilities for which such parties must pay. It was not intended to require interconnectors to establish "mini-POPs" in nearby buildings and stock them with redundant electronics, as some parties feared. Rather, the one-eighth mile standard was intended to avoid a requirement that interconnectors, particularly end users, build their facilities to the LEC location. The record convinces us, however, that adoption of this standard would not serve the public interest. Use of the one-eighth mile standard could impede the development of robust competition because CAPs would be effectively foreclosed from competing for customers within that radius.[202] Requiring the LEC to designate an interconnection point or points close to the central office largely eliminates the one-eighth mile no-competition zone. Moreover, it alleviates LEC concerns that many large business customers located near central offices could switch from special access to expanded interconnection services due to their fortuitous location, or that the LECs could be forced to extend their fiber optic facilities to additional locations. In addition, the record does not indicate that this standard would impede interested customers from taking advantage of expanded interconnection[203] or that LEC designation of interconnection points would create a potentially anticompetitive situation.

D. Points of Entry into Central Offices

86. Notice. The Commission sought comment on the need for

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indicate a change in ownership of cable facilities, although the interconnector-owned fiber optic cabling would enter the LEC facilities through the same route. In the case of physical collocation, the interconnector would retain ownership of the cable, but would pay space rental for use of LEC conduit and other facilities starting at or very near the interconnection point.

202 In the Notice we recognized that the LEC transmission facilities covered by the connection charge would constitute a zone within which interconnecting parties could not compete with LEC facilities because the LEC connection charge alone would always be less than the sum of the LEC connection charge and CAP charges.

203 Although the one-eighth mile standard would permit more end users to qualify for expanded interconnection without an upfront investment in fiber optic cabling to the LEC central office, the majority of users participating in this proceeding do not comment on the issue. Those that do mention the standard generally argue that it would disadvantage users. For example, the American Petroleum Institute argues that the standard would undermine the objective of route diversity because it is likely that the LEC and CAP transport facilities would be "single threaded" the last eighth mile to the end office. API Comments at 15.

specific rules governing the terms and conditions for expanded interconnection, although we did not specifically discuss this issue.[204]

**87.** Comments. Some CAPs and users argue that, in order to ensure route diversity and circuit redundancy, the Commission should require the LECs to offer interconnectors multiple entry locations to LEC central offices.[205] MFS contends that LECs should have to make available, upon request, at least two entry points along different major feeder cable routes. It states that the interconnector should bear the expense of constructing its own facilities to both points.[206]

**88.** NYNEX and United respond that a single point of entry should be sufficient. United asserts that in many instances it has only one point for cable entry into its central offices, and that the new cable, conduit, manhole, and building construction that would be necessary to provide two entry locations would be wasteful and unreasonable.[207] NYNEX argues that multiple entrance facilities may not be possible in some offices because of space availability and engineering concerns and, thus contends that this issue should be left to negotiations between LECs and interconnectors.[208] USTA adds that interconnecting parties should bear the responsibility of seeking alternative interconnection points at their own expense.[209]

**89.** Discussion. We conclude that LECs should be required to provide at least two separate points of entry to a central office whenever there are at least two entry points for LEC cable.[210] Providing diverse entry points into the central office ensures that interconnectors can obtain redundancy. This is important to many CAPs because their customers want increased reliability. While some of the LECs state that there are central offices where more than one point of entry is not possible, this does not appear to be a major problem. We also emphasize that a LEC would have to offer two points of entry to a particular central office only if it has at least two entry points for its own cable.

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204 Notice, 6 FCC Rcd at 3263-3264, ¶¶ 25-29.

205 See, e.g., Bankers Comments at 19; IDCMA Comments at 16-17. See also Teleport Denver Comments at 6.

206 MFS Comments at 60.

207 United Comments at 7-8.

208 NYNEX Reply Comments at Exh. 17.

209 USTA Comments at 18.

210 The LEC need not offer more than two points of entry for interconnectors even if it has additional entry points for its own facilities.

## E. Equipment Placed in Central Offices by or for Interconnectors

**90.** Notice. We stated that "the provision of fiber optic transmission links by interconnecting parties requires that equipment, such as multiplexers, be placed in the LEC central office for use by the interconnecting party."[211] The Notice also distinguished this proceeding from Computer III,[212] noting that in the latter case enhanced service providers (ESPs) sought collocation of their computers largely in order to avoid transmission costs, while here, electronic equipment is essential to the transmission services being competitively provided under expanded interconnection, and determines the availability of essential monitoring and control and associated capabilities. Accordingly, we stated that our proposal for special access expanded interconnection does not require or warrant a reevaluation of our decision not to mandate collocation for different purposes in Computer III."[213]

**91.** Comments. Several user groups contend that the Commission should, in effect, overrule Computer III and require LECs to place in their central offices competitors' enhanced service equipment, as well as switches and data over voice (DOV) equipment.[214] For example, Ad Hoc asserts that there should be no restrictions on the type of equipment interconnectors can place in the LEC central office, and submits that any arbitrary distinction would likely run afoul of the Section 202(a) prohibition against discrimination. Instead, it proposes that LECs solve any space availability problems by imposing limitations on the amount of space an individual interconnector can occupy.[215] IDCMA also argues that customers should be allowed

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211 Notice, 6 FCC Rcd at 3261, ¶ 18, n.17.

212 Amendment of Section 64.702 of the Commission's Rules and Regulations (Computer III), CC Docket No. 85-229, Phase I, 104 FCC 2d 958 (1986) (Phase I Order), recon., 2 FCC Rcd 3035 (1987) (Phase I Reconsideration Order), further recon., 3 FCC Rcd 1135 (1988) (Phase I Further Reconsideration Order), second further recon., 4 FCC Rcd 5927 (1989), Phase I Order and Phase I Reconsideration Order vacated sub nom. California v. FCC, 905 F.2d 1217 (9th Cir. 1990), pet. for rev. pending sub nom. Illinois Bell Tel. Co. v. FCC, No. 88-1364 (D.C. Cir. filed May 16, 1988); Phase II, 2 FCC Rcd 3072 (1987), recon., 3 FCC Rcd 1150 (1988), further recon., 4 FCC Rcd 5927 (1989), vacated sub nom. California v. FCC, 905 F.2d 1217 (9th Cir. 1990); Computer III Remand Proceeding: Bell Operating Company Safeguards and Tier I Local Exchange Company Safeguards, 6 FCC Rcd 7571 (1991), pets. for recon. pending, pets. for rev. pending sub nom., California v. FCC, No. 92-70083 (9th Cir. filed Feb 14, 1992), California v. FCC, No. 92-70105 (9th Cir. filed Feb. 21, 1992).

213 Notice, 6 FCC Rcd at 3261, ¶ 18, n.17.

214 See, e.g., Ad Hoc Reply Comments at 22-24; IDCMA Comments at 13-15; Bankers Reply Comments at 11. See also CompuServe Comments at 7-8.

215 Ad Hoc Comments at 22-24.

to select and provide central office equipment for interconnection with LEC-provided transmission facilities.[216]

**92.** Several LECs, on the other hand, contend that the Commission should reject these proposals. For instance, NYNEX argues that expanded interconnection is intended to permit third parties to compete with the LECs for transport, and that the use of central office space by interconnectors should be limited to equipment required to provide competitive transmission. It submits that all other equipment could be located outside the central office without imposing a technical or economic handicap on interconnectors.[217] Bell Atlantic adds that there is no reason to reopen the issue of collocation for ESPs, as both LEC-affiliated and other ESPs pay the same rates for all basic services under ONA parity pricing rules.[218] In addition, Bell Atlantic argues that since protocol conversion is an enhanced service, LECs should have no obligation to provide virtual collocation for such equipment.[219] United lists optical line terminating multiplexers, subtending DS3/SONET and DS1 multiplexers, and digital cross-connect systems as the only types of equipment that LECs should be prepared to house in their central offices under expanded interconnection.[220]

**93.** Discussion. This proceeding is intended to remove barriers to competition in the provision of basic transmission services between LEC central offices and third-party premises. We conclude that the expanded interconnection requirements should apply only to central office equipment needed to terminate basic transmission facilities, including optical terminating equipment and multiplexers -- the equipment necessary to foster competition for basic interstate access services. We do not here require the LECs to allow interconnectors to place in the central office or to designate for placement in the central office other types of equipment (such as enhanced services or customer premises equipment), under either physical or virtual collocation arrangements, since collocation of such equipment is unrelated to the competitive provision of basic transmission services.[221] In

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216 IDCMA Comments at 14, 21-22; IDCMA Reply Comments at 9-11.

217 NYNEX Comments at 14-15. The users oppose NYNEX's proposed restriction. See, e.g., Ad Hoc Reply Comments at 22-24; IDCMA Reply Comments at 5-9; Bankers Reply Comments at 11.

218 Bell Atlantic Comments at A-2.

219 Id. at A-3.

220 United Comments at 3.

221 We thus tailor the scope of our collocation requirement to what is necessary to achieve the specific public policy objective of this proceeding -- the removal of regulatory barriers to development of basic interstate access services. In the Second Notice of Proposed Rulemaking in this proceeding, we ask for comment on an IDCMA proposal that is beyond the scope of the initial Notice: that third parties be allowed to use space in LEC

addition, as we observed in the Notice, central office collocation of ESP equipment is not essential to ensuring fair competition in the provision of enhanced services. In Computer III, the Commission found and repeatedly reaffirmed that physical collocation of enhanced services equipment within LEC central offices was not necessary to achieve technical comparability between ESP and LEC services. No party here has presented any persuasive evidence to the contrary.[222]

**94.** In addition, changing our Computer III rule could have significant drawbacks for the workings of expanded interconnection under both virtual collocation and physical collocation. Allowing physical collocation of ESP equipment could easily result in space problems given the relatively large number of ESPs.[223] Under virtual collocation, allowing collocation of ESP equipment could require a LEC to install, maintain, and repair a great variety of equipment unfamiliar to its technicians. The burdens associated with installation, maintenance, and repair of interconnector-designated transmission equipment should not be unreasonable or overly burdensome for the LECs. Given the much greater variety of ESP equipment, expanding this requirement to include such equipment would cause significantly greater burdens, however. As a result, we decline to modify Computer III to require the LECs to permit collocation of ESP equipment.[224] Questions regarding switch collocation on LEC premises and collocation of equipment to be used with LEC transmission facilities are considered in the Second Notice of Proposed Rulemaking in this proceeding.[225]

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central offices for the collocation of equipment to be interconnected with LEC-provided transmission facilities. See Second Notice at ¶ 49.

222 See Computer III, 104 FCC 2d at 1037-38. See also supra note 93.

223 For this reason, we decline to require collocation of ESP equipment even when the party is already physically collocated for transmission purposes, even though permitting ESP equipment collocation under such circumstances might allow interconnectors to make more efficient use of their central office space. We reach this conclusion because we are concerned that allowing interconnectors to put ESP equipment in the limited space dedicated to their use would accelerate the point at which they would need to seek additional space. This would hasten the exhaustion of space for physical collocation of transmission facilities.

224 Accordingly, we will not require the LECs to permit collocation of protocol conversion equipment. See Computer III, 104 FCC 2d at 1037-38. We will, however, require the LECs to permit central office collocation of data-over-voice (DOV) equipment, used to provide a basic transmission service under both physical and virtual collocation.

225 Second Notice at ¶¶ 47-49.

## F. Interconnection of Non-Fiber Technologies

**95.** Notice. The Notice asked parties to address the use of our proposed standards to govern expanded interconnection of transmission systems using non-fiber optic technology.[226]

**96.** Comments. Most LECs oppose mandatory interconnection for non-fiber optic transmission systems. They argue that fiber technology is more reliable, thereby minimizing the need for interconnector access to the central office to maintain equipment under physical collocation. In addition, these LECs assert that fiber optic facilities would make the most efficient use of possibly limited telephone company cable vault and riser space. Many LECs also list a number of potential problems with mandating interconnection for microwave services, such as roof space availability, central office buildings with slanting roofs that cannot support antennas, equipment compatibility, security, implementation complications, and neighborhood opposition.[227] NYNEX, on the contrary, believes that space on central office roofs should be made available for collocation by microwave carriers, subject to reasonable limits (i.e., a maximum of four antennas per interconnector, and a prohibition on warehousing of unused space).[228]

**97.** A number of CAPs and users argue that the Commission should require that LECs make expanded interconnection available via rooftop antennas to interconnectors employing microwave facilities.[229] Locate asserts that the Commission should not underestimate the important role played by microwave carriers, and argues that if CAP microwave facilities were collocated in LEC central office buildings, users would have a facilities-diverse alternative transmission path available in the event of a LEC service outage. Locate also argues that there are no technical impediments to the collocation of microwave facilities and contends that microwave interconnection requests should be treated identically to fiber interconnection requests.[230] Ad Hoc also suggests permitting expanded interconnection for non-fiber cable.[231]

**98.** Discussion. We here require expanded interconnection of both

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226 Notice, 6 FCC Rcd at 3264, ¶ 29.

227 See, e.g., Ameritech Reply Comments at 34-37; Bell Atlantic Reply Comments at 16-17; BellSouth Reply Comments at 23-24; GTE Reply Comments at 75-76.

228 NYNEX Reply Comments at Exh. 14.

229 See, e.g., Locate Comments at 7; ALTS Comments at 26; McCaw Comments at 11-14; Ad Hoc Comments at 27; API Comments at 21; Teleport Denver Comments at 7.

230 Locate Comments at 7-13.

231 Ad Hoc Comments at 27; Ad Hoc Reply Comments at 22-23.

fiber optic systems and, where reasonably feasible, microwave transmission facilities. There are both CAPs and users who express interest in using expanded interconnection in conjunction with microwave technology.[232] Permitting microwave interconnection will expand choices generally for customers. In addition, interconnection of microwave systems could provide needed alternate routing in the event of certain types of LEC network outages. It is clear that restricting mandatory collocation to fiber optic systems would be simpler to implement than an approach permitting multiple technologies to interconnect. Microwave interconnection would require resolution of additional issues involving rooftop space availability and suitability for microwave antennas, as well as authorizations required under any other applicable rules or laws. Nevertheless, we find that such a restriction would unnecessarily limit interconnection, with an adverse effect on competition generally. The interconnection architecture and other related standards, as well as the tariffing, rate structure, and pricing rules adopted in this Order, will generally apply to microwave interconnection, except to the extent that differences in the interconnection technology warrant a different result.

**99.** At least one party supported interconnection of non-fiber optic cable facilities (e.g., copper coaxial cable) provided by third parties. A number of the LECs, however, have argued that such a requirement is undesirable because it would make limited conduit and riser space available to technologies that are much less space efficient than fiber. Given the potential adverse effects of such interconnection on the availability of conduit and riser space, we believe that interconnection of non-fiber optic cable should be permitted only upon Commission approval of a showing that such interconnection would serve the public interest in a particular case.[233]

### G. LEC Offices at Which Interconnection is Available

**100.** Notice. In the Notice, we referred to interconnection at LEC central offices, contemplating interconnection at both end offices and serving wire centers.

**101.** Comments. Various users and CAPs argue that interconnectors should be able to connect to the LEC network at as many points as possible, including end offices, serving wire centers, tandem offices and remote

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232 Locate, Bay Area Teleport, and Associated Communications-Los Angeles are CAPs with primarily microwave-based systems. Certain large users also employ radio-based technology for private line services.

233 We delegate authority to the Chief, Common Carrier Bureau to act on any such requests. This requirement would not apply to non-fiber optic cable used for the interconnection of microwave antennas located on the roof of the LEC central office building.

distribution nodes.[234] They assert that this would enable them to achieve economies of scale, access the full array of LEC services, and obtain a greater degree of route diversity and network redundancy.[235]

**102.** The LECs urge the Commission to reject proposals that they be required to provide expanded interconnection at locations other than end offices or serving wire centers. They argue that such an approach would interfere with their ability to design and maintain efficient networks.[236] Ameritech points out that there are more than one thousand remote nodes in its operating territory, and argues that an obligation to provide non-discriminatory interconnection at all of these locations would exponentially increase the LECs' burden of administering expanded interconnection.[237] In addition, the LECs contend that the proposal might necessitate radical access charge restructuring, potentially forcing the LECs to establish separate rates for each discrete part of their networks based on disaggregated deaveraged costs.[238]

**103.** Discussion. We believe that LECs should be required to provide expanded interconnection at serving wire centers (SWCs) and end offices.[239] These offices are designed to provide aggregated access to end user premises and IXC POPs, to house a variety of equipment, and connect many different types of equipment and facilities. We also will require LECs to provide expanded interconnection at remote distribution nodes, and any other points, that the LEC treats as a rating point -- a point used in calculating the length of interoffice special access links.[240] We believe that interconnection at these points is necessary to foster competition with the existing LEC service offerings. Expanded interconnection at tandem

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234 See, e.g., ALTS Comments at 16; Teleport Denver Comments at 6; IDCMA Comments at 16-17; Intermedia Reply Comments at 1.

235 See, e.g., Bankers Comments at 19; IDCMA Comments at 16-17.

236 See, e.g., Ameritech Reply Comments at 31-32; BellSouth Reply Comments at 18-19; Pacific Reply Comments at 68-72; Cincinnati Bell Reply Comments at 21-22.

237 Ameritech Reply Comments at 32.

238 See, e.g., Cincinnati Bell Reply Comments at 21-22; BellSouth Reply Comments at 19; Pacific Reply Comments at 71-77.

239 Most SWCs also serve as end offices.

240 If interconnection at such a remote node is technically or practically infeasible, for example, because of space constraints, the LEC can apply for an exemption from or a waiver of this requirement.

switches is not an issue with regard to special access interconnection.[241] The question of interconnection with tandem switches, however, must be resolved when the Commission considers switched transport interconnection.[242]

**104.** While requiring LECs to provide expanded interconnection at other remote nodes or locations would increase interconnector options, it would substantially increase the burden of expanded interconnection on LECs.[243] An obligation to interconnect at all such locations has the potential to complicate significantly LEC network planning.[244] These remote nodes also tend to be very small (some are merely underground or pole mounted splice cases or metal boxes) and interconnection at many of these points would not be feasible due to space limitations and other administrative concerns.[245]

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241 LEC expanded interconnection obligations extend to central office buildings that house end offices or SWCs as well as tandem switches, but not to buildings that contain only tandem switches and are not used as a rating point for special access.

242 See Second Notice at ¶ 20.

243 For example, the LECs would have to provide for maintenance of or interconnector access to equipment at locations not regularly visited by LEC personnel, as well as security for both LEC and interconnector equipment.

244 Remote nodes and other similar locations are not generally used to house a range of equipment. Instead, they typically house only equipment necessary for specific functions such as repeater. Long term network planning could be complicated considerably if LECs had to anticipate use of such locations for broader purposes.

We also note that expanded interconnection at such remote nodes appears to be of little competitive value absent a degree of LEC special access unbundling that is beyond the scope of this proceeding. LEC rate structures do not allow customers to originate or terminate special access service at these subsidiary nodes. An interconnector will have difficulty attracting customers for a portion of a special access link if the LEC rate structure is not unbundled to allow the customer to purchase the remainder of the special access link from the LEC.

245 The Commission's customer proprietary network information (CPNI) rules, see Computer III Remand Proceedings: Bell Operating Company Safeguards and Tier 1 Local Exchange Company Safeguards, 6 FCC Rcd 7571, 7605-14 (1991), prohibit the BOCs and AT&T, in certain circumstances, from using customer information obtained in the course of providing basic services to market their enhanced services and CPE. Locate and MCI argue that similar rules should be applied to information about CAP customers that LECs obtain in the course of providing expanded interconnection. See Locate Comments at 30; MCI Reply Comments at 64-65. We disagree. The provision of expanded interconnection and the LECs' competing special access services are basic services. Information about expanded interconnection customers is likely to

## H. Ratcheting of Switched and Special Access Services

**105.** Notice. While the Notice proposed expanded interconnection only for the provision of special access services, we did not specifically discuss the question of whether interconnectors or their customers could engage in ratcheting, carrying switched access traffic over interconnected special access circuits while paying the full switched transport access charge to the LEC.[246]

**106.** Comments. Certain LECs ask that the Commission explicitly prohibit special access interconnectors from "ratcheting" and using any excess special access capacity to provide switched transport service through the same collocated facilities. The LECs argue that ratcheting increases the cross-elasticity between special and switched access and should be prohibited in order to minimize customer circumvention of the Commission's attempt to distinguish between the two services for purposes of expanded interconnection.[247] Several LECs point out that under the Execunet case,[248] interconnectors could be entitled to demand connection of switched traffic to their collocated facilities unless the Commission makes a specific public

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be available to the LECs' special access sales force through means other than a CAP expanded interconnection order, obviating the competitive and privacy concerns underlying our CPNI rules. For example, except when seeking redundancy, a customer ordering service from a CAP will usually discontinue circuits provided by the LEC or reduce its orders for additional LEC circuits. These actions alone will no doubt generate a competitive response from the LEC sales staff. In addition, compared with the separation between the sales staffs for basic services and for CPE or enhanced services, it would be more burdensome for LECs to separate personnel who market expanded interconnection from those who market other access services.

246 The LECs permit ratcheting by special access customers, with customers ordering high capacity special access service, such as DS1, and carrying switched transport traffic over a portion of the circuits. The customer pays the full switched transport access charge, and receives a reduction in its special access charges proportional to the number of circuits used for switched transport. Thus, ratcheting over LEC facilities does not allow customers to avoid switched transport charges, but it does permit customers to use high capacity special access service with the resulting lower per circuit cost to the customer when this would not be economical based on special access traffic alone. See infra note 461.

247 See, e.g., Bell Atlantic Comments at A-15; Pacific Comments at 15, 63-67; Pacific Reply Comments at 17-18; Ameritech Comments at 35, 58; USTA Comments at 43-44.

248 MCI Telecommunications Corp. v. FCC, 561 F.2d 365, 377 (D.C. Cir. 1977), cert. denied, 434 U.S. 1040 (1978).